NEW WAVE NET CORPORATION

December 21, 2012

Marlene H. Dortch, Secretary

Federal Communications Commission

445 12th Street, SW

Washington, DC 20554

Re: WT Docket No. 11-49

Dear Ms. Dortch,

I am writing you on behalf of New Wave Net Corporation, a local small business operating primarily as a WISP in Central Illinois. We provide Broadband services at speeds of 4M and above to many rural residential, farm, small business, educational, and govenmental customers in 10 Illinois counties that have no other option for broadband then dialup or slow-speed high cost satellite service

Like many other WISPs in the USA we utilize the 900 MHz ISM band to provide service in extremely wooded areas where other ISM frequencies and even the 2.5 EBS spectrum we sub-lease can't penetrate. At this time, 900 Mhz is the only technically viable solution in these conditions.

The joint testing report done by Progeny, clearly shows drastic reduction in capacity with the 900 Mhz equipment vendors we utilize. See table below:

Equipment	**Test #**	**WISP Equipment Frequency (MHz)**	**Progeny Frequency Block(s) (MHz)**	**% Throughput Reduction /w Progeny Network "ON"**
Cambium Canopy M9000 AP and M9000 SMC (SM on hill; AP on valley floor; both horizontal polarization)	1 DL 1 UL	902-910 (Outside Progeny B and C Blocks)	919-921 (B-Block) 925-927 (C-Block)	AP to SM – 0.5% SM to AP – None **Overall = 0.5%**
	2 DL 2 UL	916-924 (Overlaps Progeny B Block)	919-921 (B-Block) 925-927 (C-Block)	AP to SM – **14.9%** SM to AP – **8.3%** **Overall = 23.2%**
	3 DL 3 UL	919-927 (Overlaps Progeny B and C Blocks)	919-921 (B-Block) 925-927 (C-Block)	AP to SM – **49%** SM to AP – **13.2%** **Overall = 62.2%**
Ubiquiti Rocket M900S AP and CPE (AP on hill; CPE on valley floor; dual H and V polarization)	4 DL 4 UL	902-912 (Outside Progeny B and C Blocks)	919-921 (B-Block) 925-927 (C-Block)	AP to CPE – (+) 2% CPE to AP – **2.3%** **Overall = 0.2%**
	5 DL 5 UL	912-922 (Overlaps Progeny B Block)	919-921 (B-Block) 925-927 (C-Block)	AP to CPE – **7.9%** CPE to AP – **41.5%** **Overall = 49.4%**
	6 DL 6 UL	917-927 (Overlaps Progeny B and C Blocks)	919-921 (B-Block) 925-927 (C-Block)	AP to CPE – **2.5%** CPE to AP – **17.6%** **Overall = 20.1%**

As noted in the test results this new interference constitutes an **"unacceptable level"** of both current and future interference because of the:

- Throughput reductions
- Reliability reductions
- Loss of channel use
- Increased costs to re-engineer and re-build our network(s) to deploy more low-level APs and backhauls to escape from Progeny interference
- Loss of the ability to serve our customers in heavily wooded areas
- Unlimited and unknown number of additional Progeny base station transmitters that may be deployed in the future which will cause us to experience continuing throughput reductions, reliability problems, customer losses, business harm, etc.

In order to preserve the Broadband access for our customers in IL and to continue our efforts to expand Broadband service to un-served areas. Please DENY APPROVAL for Progeny to operate its licensed networks inside the 902-928 MHz band.

Sincerely,

Garth Nicholas
CFO
New Wave Net Corp.